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ABSTRACT

This study was conducted to examine attributions that teachers hold for students' academic success and failure, and the relationship between these attributions and teaching level and teacher perceptions of efficacy. Elementary (N=123), middle (N=55), and high school teachers (N=62) were surveyed; attributional data were gathered through the Teacher Attributions for Academic Performance Scale, and teacher efficacy measured by two items: Personal Teaching Efficacy (PTE), the belief that one has the ability to bring about student learning even under difficult circumstances, and Teaching Efficacy (TE), the belief that any teacher has the ability to bring about change in students despite factors beyond the teacher's control. Results indicated that attributions held about students' academic performance vary depending upon the efficacy beliefs held by the teacher; teachers high in PTE beliefs emphasized the role of the teacher and the instructional program in explaining student success while de-emphasizing home influences; teachers with a strong sense of PTE saw themselves as responsible for student learning outcomes, regardless of whether those learning outcomes connoted success or failure, perhaps because they view academically failing students less as a threat and more as a challenge. (LL)

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Attributions That Teachers Hold to Account for Student Success and Failure and Their Relationship to Teaching Level and Teacher Efficacy Beliefs

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RUNNING HEAD: Teacher's Attributions

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Abstract

Within the context of a MANOVA design, this study examined the attributions that teachers hold to explain their students' academic success and failure. Teachers' attributions were examined in relation to teaching level (elementary, middle, and high school) and teachers' efficacy beliefs. The results suggest that the attributions that teachers use to explain student performance vary by both teaching level and efficacy.

Attributions That Teachers Hold to Account for Student Success and Failure and Their Relationship to Teaching Level and Teacher Efficacy Beliefs

Introduction

Within the last decade, teachers' attributions for the causes of students' performance has been an active field of study for researchers attempting to understand teacher expectancies and their impact on student academic behavior. One major area of study has focused on factors that may affect or mediate teachers' attributions (Clark & Peterson, 1986).

A number of studies have examined the relationship between teachers' attributions for student performances and such factors as the teachers' role in the classroom (e.g., Brandt, Hayden, & Brophy, 1975) and the students' race and social class (e.g., Cooper, Baron, & Lowe, 1975; Wiley & Eskilson, 1978). However, the question as to whether such attributions vary systematically by teaching level (elementary, secondary) and whether this relationship differs for student success or failure conditions has not been thoroughly investigated.

Hall, Villeme, and Burley (1989), using a group of beginning teachers, found that elementary, middle, and high school teachers differed in the importance they assign individual attributions to explain student academic failure, but did not differ in the importance they assign individual attributions to explain students' academic success. The findings indicated that elementary and middle school teachers, when compared to high

school teachers, placed greater emphasis on the following attributions in explaining poor academic performance: (a) students' ability, (b) students' effort, (c) students' concentration, (d) students' work habits, (e) difficulty of the task, and (f) influences of the home.

Much work also remains in order to clarify the nature of the relationship between the teachers' attributions about student performance and other instructionally-relevant perceptions held by teachers. One potentially promising area of study involves teacher efficacy--the beliefs that teachers hold about their ability to influence student learning. Gibson and Dembo (1984) used Bandura's theory of self-efficacy as a conceptual framework for investigating teacher efficacy. Their findings suggest that teacher efficacy, rather than being a unidimensional concept, is in fact a two-dimensional construct. Teacher efficacy could be explained by two factors: Personal Teaching Efficacy (PTE) and Teaching Efficacy (TE). The authors define Personal Teaching Efficacy as a teacher's belief in self, that he or she possesses the personal skills and abilities to bring about student learning. In contrast, Teaching Efficacy represents "a teacher's sense of teaching efficacy" (p. 574), or belief that any teacher's ability to bring about learning is or is not limited to factors external to the instructor.

Teacher efficacy has been identified as a predictor of individual differences in teaching effectiveness (Armor, et al., 1976; Berman & McLaughlin, 1977), as an indicator of teachers'

instructional behaviors (Gibson & Dembo, 1984), and as a factor in student achievement (Ashton & Webb, 1986). This perceived ability to help students may play a role in the nature of the attributions that teachers adopt as explanations of their students' academic behavior.

Purpose

The present study sought to examine, in a population of experienced teachers, the attributions that teachers hold for their students' academic success and failure, and the relationship between these attributions and both teaching level and teacher perceptions of efficacy. It was anticipated that teachers' attributional patterns would show a teaching level effect. More specifically, the expectation was that elementary teachers would place greater weight than secondary teachers on selected attributional explanations, due to the emphasis in their training on student individual differences and the complexity of children's behavior, and that these attributional patterns would differ between success and failure conditions. It was further expected that high efficacy teachers would tend to emphasize those attributions that reflect some degree of teacher influence or control. No interaction effects between teaching level and teacher efficacy were expected: i.e., the nature of the association between teacher efficacy and teachers' attribution categories were expected to generalize across elementary and secondary level teachers.

Method

Subjects

The target population consisted of teachers grade 1 to 12 in a large school district in Florida. The teachers were stratified by school and a 10% sample was randomly selected from each school. Survey forms were placed in the teachers' school mailboxes and 262 of the 365 teachers surveyed responded (72%). All responses were gathered under conditions of anonymity. The original sample size was reduced for statistical purposes to 240 subjects after deleting cases with randomly missing data. Of the 240 respondents 123 taught elementary school, 55 taught middle school, and 62 taught high school.

Instrumentation and Procedures

The attributional data for the study were gathered through use of the Teacher Attributions for Academic Performance Scale (TAAPS), a modification of a scale used by Hall, et al. (1989).

The TAAPS is comprised of 11 items, representing 11 of the 12 categories found by Cooper and Burger (1980) to be descriptive of the attributions that teachers hold to account for students' academic performance. Six of the attributions were considered to reflect internal influences (Student's Ability, Typical Effort, Concentration or Attention, Interest in Subject Matter, Work Habits or Attitudes, and Previous School Experience). The remaining five were considered to reflect external influences (Task Difficulty, Characteristics of the Program, Teacher Influence, Peer Influence, and Home Influence). Each item

allowed the teachers to indicate, on a 6-point scale, how important a role the attribution plays in explaining the academic performance of their students. In the present study the 11 attribution categories were treated as dependent variables.

In completing the TAAPS, each teacher was first asked to provide on the form the initials of three students "who have been performing well academically in your classroom." The teacher was then directed: "Thinking of your three students as a single group, mark the position on each scale to indicate the importance, in general, each factor played in these students' successful academic performance." After responding to the 11 attribution items under the above directions, each teacher was then asked to provide the initials of three students "who have not been performing well academically in your classes." The teacher was then directed: "Thinking of these three students as a single group, mark the position on each scale to indicate the importance each factor played in these students' poor academic performance.

Two items adapted from Berman and McLaughlin (1977) were used to measure the dimensions of Teacher Efficacy. The first item measured Personal Teaching Efficacy, the belief that one has the ability to bring about student learning even under difficult circumstances. The second item measured Teaching Efficacy, the belief that any teacher has the ability to bring about change in students despite factors beyond the teacher's control.

Results

The response distributions for the Personal Teaching Efficacy (PTE) and Teaching Efficacy (TE) measures were divided at the median to provide two levels of efficacy for each variable (low vs. high). The median split for PTE resulted in 116 teachers being grouped as having lower Personal Teaching Efficacy and 124 teachers as having higher Personal Teaching Efficacy. The median split for the TE measure resulted in 111 teachers being classified as having lower Teaching Efficacy and the remaining 129 as having higher Teaching Efficacy.

Descriptive statistics were computed for the 11 TAAPS variables across teaching level (elementary, middle, high school) and low vs high teaching efficacy (PTE & TE). Overall means and standard deviations are displayed in Table 1. A rank ordering of mean ratings for the attribution variables, in both the success and failure condition, indicated that regardless of teaching level or dimension of efficacy, teachers rated students work habits, effort, attention, and home influences as being the most important in explaining academic achievement. These attributions, for the most part, concern factors that are internal to the child rather than factors that are under teacher control or reflective of the instructional program.

Insert Table 1 about here

Teacher responses to the TAAPS categories under the success and failure condition were each analyzed within a two-factor MANOVA using teaching level (elementary, middle, & high school) and Personal Teaching Efficacy (low vs high) as independent variables. MANOVA's were also computed for the 11 attribution categories for the success and failure conditions using teaching level and Teaching Efficacy as independent variables.

Attributions by Teaching Level and Personal Teaching Efficacy

Success Condition. The MANOVA for teachers' attributions for the success condition by teaching level and PTE produced a significant main effect for Personal Teaching Efficacy, $F(11,220) = 1.95$, $p < .05$. No main effects for teaching level, nor interaction effects for teaching level by PTE were found.

Results of the univariate F tests between high and low Personal Teaching Efficacy revealed that there were significant differences in two of the eleven attribution categories (see Table 2). Comparisons indicated that teachers with higher personal efficacy, as compared to those with lower personal efficacy, placed significantly greater importance on their ability ($p < .01$) to impact the academic performance of successful students ($M = 4.97$ & 4.54, respectively). These same teachers were found to have placed significantly greater importance on the characteristics of the program ($p < .05$) as an explanation for achievement than those with lower personal efficacy ($M = 4.80$ & 4.50, respectively). Thus, teachers who perceive themselves as having high personal efficacy, as compared

to their counterparts with low personal efficacy, tend to place greater emphasis on factors that are external to the student in explaining academic success.

Insert Table 2 about here

Failure Condition. The MANOVA for teachers' attributions for the failure condition by teaching level and PTE produced significant main effects for both Personal Teaching Efficacy, $F(11,218) = 2.53$, $p < .01$, and teaching level, $F(22,436) = 3.69$, $p < .011$. No interaction effects for teaching level by PTE were found (see Table 3).

Results of the univariate tests between high and low PTE groups indicated a significant difference in one of the eleven attributions categories. Teacher influence was rated as being significantly more important ($p < .01$) in explaining academic failure by teachers with high Personal Teaching Efficacy than by teachers with low Personal Teaching Efficacy ($M = 4.35$ & 3.76, respectively). The findings suggest that teachers with high levels of personal efficacy are more likely or willing to assume direct responsibility for student failure than teachers with low levels of personal efficacy.

Univariate F tests for teaching level main effects indicated significant differences in four of the eleven attribution categories. Post hoc comparisons were performed using Scheffe's test. The attribution, student ability, was rated as being

significantly more important ($p < .01$) in explaining academic failure by elementary teachers than by middle school teachers ($M = 4.54$ & 3.81, respectively). However, no significant differences in ratings of student ability were noted between elementary and high school teachers, or middle and high school teachers.

In contrast, middle school teachers rated peer influence ($p < .01$) as being significantly more important in explaining academic failure than did elementary teachers ($M = 4.24$ & 3.50, respectively). The absence of significant differences in the ratings of peer influence on failure between elementary and high school teachers, and between middle school and high school teachers, suggests or re-emphasizes the developmental and maturational transition of child to adolescent and the stage at which susceptibility to peer influence is greatest.

Elementary teachers, as compared to high school teachers, were found to have rated characteristics of the program and influences of the home as being significantly more important ($p < .01$) in explaining student failure ($M = 4.37$ & 3.80; $M = 5.20$ & 4.68, respectively). All other teaching level combinations, for both attribution categories, indicated the absence of significant differences.

Insert Table 3 about here

Attributions by Teaching Level and Teaching Efficacy

Success Condition. The MANOVA for teachers' attributions for the success condition by teaching level and TE produced a significant main effect for Teaching Efficacy, $F(11,220) = 3.74$, $p < .01$. No main effects for teaching level, nor interaction effects for teaching level by TE were found.

Results of the univariate F tests between high and low Teaching Efficacy groups revealed that there were significant differences in three of the eleven attribution categories (see Table 4). Teachers with higher levels of general Teaching Efficacy, when compared to teachers with lower levels of Teaching Efficacy, rated the ability of teachers to influence and the characteristics of the program as significantly more important ($p < .05$) in explaining successful achievement ($M = 4.93$ & 4.57; $M = 4.83$ & 4.56, respectively). In contrast, teachers in the low Teaching Efficacy group placed significantly greater importance on home influences ($p < .01$) as an explanation for achievement than did high efficacy teachers ($M = 5.44$ & 5.02, respectively). The findings suggest that teachers with high Teaching Efficacy attribute student success more to their own ability to influence and program characteristics and less to home influences. Their counterparts, the low efficacy group, attribute student success more to home influences and less to program characteristics and teachers' abilities to impact achievement.

Insert Table 4 about here

Failure Condition. The MANOVA for teachers' attributions for the failure condition by teaching level and TE produced a significant main effect for teaching level, $F(22,436) = 3.21$, $p < .01$. No main effects for Teaching Efficacy, nor interaction effects for teaching level by TE were found (see Table 5).

Results of the univariate F tests between teaching levels revealed that there were significant differences in four of the eleven attribution categories. Post hoc comparisons, using Scheffe's test, indicated that elementary teachers rated students' ability as being significantly more important ($p < .05$) in explaining failure than did middle school teachers ($M = 4.54$ & 3.81, respectively). Middle school teachers, when compared to elementary teachers, placed greater emphasis on peer influences ($p < .05$) as a predicator of academic failure ($M = 4.24$ & 3.50, respectively). It was also found that elementary teachers rated characteristics of the program and home influences as being significantly more important ($p < .05$) in explaining failure than did high school teachers ($M = 4.37$ & 3.80; $M = 5.20$ & 4.68, respectively).

Insert Table 5 about here

In summary, the data indicated that teachers across grade levels do not differ in their ratings of what attribution categories are most important in predicting successful academic performance. However, these same teachers, when assigning

ratings of importance to attribution categories that explain academic failure evidenced significant differences in perception.

When dimensions of teacher efficacy were examined it was found that teachers with higher levels of Personal Teaching Efficacy attribute student success and student failure more to their own influence than did lower Personal Efficacy teachers. In examining high vs. low general Teaching Efficacy, differences in attribution ratings to explain achievement were found for the success condition, but not the failure condition.

Discussion

The findings clearly suggest that the attributions that teachers hold about their students' academic performance vary depending upon the efficacy beliefs held by the teacher.

Teachers characterized as being high in Personal Teaching Efficacy beliefs, as compared to their counterparts, were more apt to emphasize the role of the teacher and the instructional program in explaining student success, and less apt to emphasize home influences, a factor external to the school. In effect, they were more apt to view the teacher as being directly or indirectly responsible for students' progress in learning. These high personal efficacy teachers were also more apt to emphasize the teacher's role in explaining student failure. This suggests that the teachers with a relatively strong sense of Personal Teaching Efficacy see themselves as responsible for student learning outcomes, regardless of whether those learning outcomes connote success or failure. These findings appear inconsistent

with the pattern of ego-enhancing attributional responses found by such researchers as Brandt, Hayden and Brophy (1975), Wiley and Eskilson (1978), and Hall, Villeme, and Burley (1989), wherein teachers attribute student success to themselves as teachers while attributing student failure to factors other than the teacher. It may be that teachers who feel personally efficacious in their role as a teacher tend to view academically failing students less as a threat and more as a challenge.

Teachers characterized by high Teaching Efficacy beliefs showed no clear differences from teachers with low Teaching Efficacy beliefs in the pattern of their attributions for student failure. However, they did tend to differ from the other teachers in the pattern of their attributions for student success. High Teaching Efficacy teachers were more apt to emphasize the role of the teacher and the instructional program in explaining student success, and less apt to emphasize the role of the home environment. In this regard, Teaching Efficacy beliefs associated with teachers' attributions for success functioned in a manner similar to that of Personal Teaching Efficacy.

In regard to teaching level, the findings suggest that the attributions that teachers hold to account for their students' academic performance vary between elementary and secondary teachers for the failure condition, but not for the success condition. Elementary teachers, more so than high school teachers, tend to emphasize the role of the instructional program

and home influences in explaining student failure. As compared to middle school teachers, elementary teachers tended to place more emphasis on student ability and less emphasis on peer influences to account for student failure.

The findings of an association between teaching level and teachers' attributions for student performance are reminiscent of the findings of Hall, et al. (1989). Working with first-year teachers, those investigators found that elementary teachers, as compared to secondary teachers, placed greater emphasis on selected attribution categories in explaining their students academic failure. However, the specific pattern of attributions that was emphasized by the new elementary teachers differed somewhat from the pattern of attributions targeted by the experienced teachers in the present study. The Hall, et al. study, like the present study, found no association between teaching level and teachers' attributional patterns for explaining student success. It appears that elementary teachers and secondary teachers hold different expectations about students and student learning which lead them to target different explanations for their students academic failure. This may be due to differences in the age of the children with which these two groups of teachers work, or it may be reflective of distinctions in the preservice preparation of the teachers.

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Table 1

Means and Standard Deviations for Teachers' Attributions for the Achievement of Successful and Unsuccessful Students.

ATTRIBUTIONS	SUCCESS		FAILURE	
	M	SD	M	SD
Student Ability	4.94	1.06	4.25	1.55
*Student Effort	5.53	.67	5.20	1.12
*Student Attention	5.41	.77	5.19	1.15
Student Interest	4.98	1.01	4.75	1.22
*Work Habits	5.50	.78	5.32	1.15
Previous Experience	4.45	1.26	4.22	1.44
Difficulty of Task	4.34	1.25	4.13	1.43
Teacher Influence	4.75	1.05	4.05	1.42
Program Traits	4.66	1.07	4.10	1.34
Peer Influence	3.67	1.45	3.77	1.63
*Home Influence	5.23	1.13	5.04	1.33

Note. * variables in top four ranking

Table 2

MANOVA on Teachers' Attributions for Academic Success by High and Low "Personal Teaching" Efficacy and Teaching Level.

Multivariate Test Statistics

	Wilks' Lambda	df	F	p
Personal Efficacy	.91	11,220	1.95	.04*
Teaching Level	.86	22,440	1.51	.07
Efficacy x Level	.88	22,440	1.33	.15

Univariate F Tests for Attributions of Successful Students

	By Teaching Level (df = 2,230)		By Personal Teaching Efficacy (df = 1,230)	
Attribution	F	P	F	p
Student Ability	3.44	.03*	2.01	NS
Student Effort	.23	NS	1.01	NS
Student Attention	.72	NS	1.27	NS
Student Interest	2.94	NS	.15	NS
Student Habits	.73	NS	.00	NS
Student Experience	2.06	NS	3.01	NS
Difficulty of Task	.43	NS	.26	NS
Teacher Influence	1.67	NS	9.44	.01**
Char. of Program	.33	NS	4.87	.03*
Peer Influence	.51	NS	.18	NS
Home Influence	1.53	NS	3.31	NS

Note. Char. is Characteristics.
*p < .05. **p < .01.

Table 3

MANOVA on Teachers' Attributions for Academic Failure by High and Low "Personal Teaching" Efficacy and Teaching Level.

Multivariate Test Statistics

	Wilks' Lambda	df	F	p
Personal Efficacy	.89	11,218	2.53	.01**
Teaching Level	.71	22,436	3.69	.01**
Efficacy x Level	.92	22,436	.81	.72

Univariate F Tests for Attributions of Successful Students

	By Teaching Level (df = 2,228)		By Personal Teaching Efficacy (df = 1,228)	
Attribution	F	P	F	p
Student Ability	5.78	.01**	3.34	NS
Student Effort	1.41	NS	.28	NS
Student Attention	.32	NS	1.29	NS
Student Interest	.72	NS	.41	NS
Student Habits	2.02	NS	.46	NS
Student Experience	.02	NS	.13	NS
Difficulty of Task	2.12	NS	.39	NS
Teacher Influence	2.22	NS	7.82	.01**
Char. of Program	4.31	.01*	.77	NS
Peer Influence	5.27	.01**	2.75	NS
Home Influence	5.43	.01**	2.69	NS

Note. Char. is Characteristics.
*p < .05. **p < .01.

Table 4

MANOVA on Teachers' Attributions for Academic Success by High and Low "Teaching" Efficacy and Teaching Level.

Multivariate Test Statistics

	Wilks' Lambda	df	F	p
Teaching Efficacy	.84	11,220	3.74	.01**
Teaching Level	.88	22,440	1.32	.15
Efficacy x Level	.94	22,440	.68	.86

Univariate F Tests for Attributions of Successful Students

	By Teaching Level (df = 2,230)		By Teaching Efficacy (df = 1,230)	
Attribution	F	P	F	p
Student Ability	2.09	NS	.46	NS
Student Effort	.23	NS	1.02	NS
Student Attention	.50	NS	.05	NS
Student Interest	3.00	NS	1.88	NS
Student Habits	.60	NS	2.32	NS
Student Experience	1.38	NS	1.20	NS
Difficulty of Task	.27	NS	1.09	NS
Teacher Influence	2.62	NS	6.19	.01*
Char. of Program	.07	NS	5.73	.02*
Peer Influence	.27	NS	2.63	NS
Home Influence	1.12	NS	6.20	.01*

Note. Char. is Characteristics.
*p < .05. **p < .01.

Table 5

MANOVA on Teachers' Attributions for Academic Failure by High and Low "Teaching" Efficacy and Teaching Level.

Multivariate Test Statistics

	Wilks' Lambda	df	F	p
Teaching Efficacy	.94	11,218	1.13	.34
Teaching Level	.74	22,436	3.21	.01**
Efficacy x Level	.93	22,436	.93	.56

Univariate F Tests for Attributions of Successful Students

	By Teaching Level (df = 2,228)		By Teaching Efficacy (df = 1,228)	
Attribution	F	p	F	p
Student Ability	3.98	.02*	3.75	NS
Student Effort	1.97	NS	3.24	NS
Student Attention	.47	NS	1.16	NS
Student Interest	.39	NS	2.90	NS
Student Habits	1.60	NS	2.13	NS
Student Experience	.06	NS	.11	NS
Difficulty of Task	2.28	NS	1.81	NS
Teacher Influence	2.94	NS	4.13	.04
Char. of Program	4.22	.02*	2.50	NS
Peer Influence	4.22	.02*	.28	NS
Home Influence	4.30	.02*	.15	NS

Note. Char. is Characteristics.
*p < .05. **p < .01.